



THE UNITED STATES PATENT AND TRADEMARK OFFICE

**INFORMATION DISCLOSURE STATEMENT**

APPLICANT: Gabric et al

SERIAL NO.: 10/606,069 GROUP ART UNIT: 2812

FILED: June 25, 2003 CONFIRMATION NO.: 1618

INVENTION: "METHOD FOR FABRICATING MICROSTRUCTURES  
AND ARRANGEMENT OF MICROSTRUCTURES"

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

SIR:

In accordance with the provisions of 37 CFR 1.56, 1.97 and 1.98, it is requested that a citation and examination of the references listed on the attached Form PTO-1449 be made during the course of the examination of the above-identified application.

**R E M A R K S**

In the Background of the Invention, on pages 1, 2 and 3 of the application, U.S. Patent Nos. 5,821,014; 5,869,880; 5,936,295; 6,083,275; 6,252,290; 6,277,728 and 6,297,125 were cited and discussed. Copies of these seven U.S. Patents are attached herewith.

Also discussed in the Background of the Invention were German 199 57 302 and its corresponding United States Patent Application Publication No. US 2001/0002732 A1 and German 101 09 778. Copies of these two German Applications plus the United States Patent Application Publication are also attached herewith.

In addition to these patent references, the first page of the application, in the Background of the Invention, cites and discusses an article by Bohr, an article by S. Oh and K. Chang, an article by T.H. Ning and an article by K. Yamashita and S. Odanaka. Copies of these four articles are also attached herewith.

It is respectfully submitted that the specification distinguishes the method of claims 1-16 and the arrangement of microstructures recited in claims 17-24 from the teachings of the above-identified 14 references.

In a German Office Action dated February 5, 2003 for the corresponding German Application DE 102 28 344.3, from which the present application claims priority, the above-mentioned U.S. Patent No. 5,869,880 was cited along with EP 1 152 463 and an article by Ueda et al entitled "A Novel Air Gap Integration Scheme for Multi-Level Interconnects Using Self-Aligned Via Plugs". A copy of the article and the European Application are also attached herewith. It is respectfully submitted that the claims of the present application are patentable over the teachings of these two references and are allowable.

Respectfully submitted,

(Reg. No. 24,149)

James D. Hobart

## SCHIFF HARDIN & WAITE

## Patent Department

6600 Sears Tower

233 South Wacker Drive

255 South Wacker Dr.  
Chicago, Illinois 606

(312) 258-5781

(512) 238-5781

DATED: October 1, 2003

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450 on October 1, 2003.

James D. Hobart

James D. Hobart  
Name of Applicants' Attorney

Signature

October 1, 2003

Date \_\_\_\_\_

Form PTO-1449 				Docket No. P03,0217	Serial No. 10/606,069		
				Applicant Gabric et al			
				Filing Date June 25, 2003	Group Art Unit 2812		
<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initials		Document Number	Date	Name	Class	Subclass	Filing Date If appropriate
	AA	5,821,014	10/13/1998	Chen et al			
	AB	5,869,880	02/09/1999	Grill et al			
	AC	5,936,295	08/10/1999	Havemann et al			
	AD	6,083,275	07/04/2000	Heng et al			
	AE	6,252,290	06/26/2001	Quek et al			
	AF	6,277,728	08/21/2001	Ahn et al			
	AG	6,297,125	10/02/2001	Nag et al			
	AH						
	AI						
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	Translation
	AJ	1 152 463	11/07/2001	Europe			Yes
	AK	199 57 302	05/31/2001	Germany			See AP
	AL	101 09 778	09/19/2002	Germany			X
	AM						
	AN						
	AO						
<b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	AP	United States Patent Application Publication no. US 2001/0002732 of Schwarzl et al, published June 7, 2001					
	AQ	M.T. Bohr, "Interconnect Scaling – The Real Limiter to High Performance ULSI", <u>IEDM 95</u> , pages 241 – 244					
	AR	S. Oh and K. Chang, "2001 Needs for Multi-Level Interconnect Technology", <u>Circuits &amp; Devices</u> , January 1995, pages 16 – 20					
	AS	T.H. Ning, "0.1 µm Technology and BEOL", <u>Mat. Res. Soc. Symp. Proc.</u> , Vol. 427, 1996, pages 17 – 21					
	AT	K. Yamashita & S. Odanaka, "Interconnect Scaling Scenario using a Chip Level Interconnect Model", <u>Symp. On VLSI Technology Digest of Technical Papers</u> , 1997, pages 53 - 54.					
	AU	Ueda et al, "A Novel Air Gap Integration Scheme for Multi-Level Interconnects Using Self-Aligned Via Plugs", <u>1998 Symposium on VLSI Technology Digest of Technical Papers</u> , pp 46, 47.					
Examiner			Date Considered				
<b>*EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							